The State of Offshore Wind Industry

Project Cargo Summit, Bilbao

18th September 2024



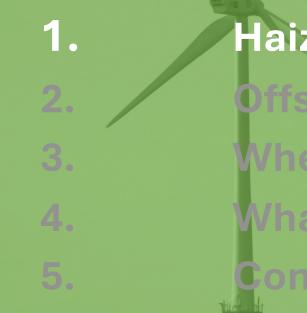




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Haizea Wind Group: Who we are and what we do Offshore Wind Historical recap Where we are now What to expect Conclusions





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Haizea Wind Group: Who we are and what we do



Haizea was Founded in 2017 by a group of entrepreneurs and investors passionate about the wind industry. The same year, works started for the factories in the port of Bilbao and in Santa Fe, Argentina

The large ambition of the project enabled the integration of Grupo WEC and Tecnoaranda at the end of 2018 and 2019 respectively



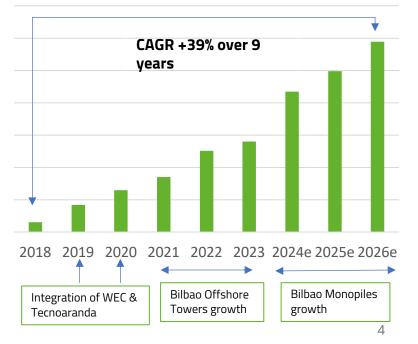
In 2021, the french subsidiary Haizea Breizh was founded.

In 2022 Haizea took final investment decision to build a new Monopile facility in the port of Bilbao, which started operating at the end of 2023

Haizea now operates in 3 countries, Spain, France and Argentina, employs above 1.500 people with a consolidated turnover exceeding 400M€



Haizea Wind Group Turnover per year







Haizea Wind Group: Who we are and what we do Hubs, shafts haizea & Bedplates grupo wec haizea bilbao Offshore Towers haizea breizh haizea tecnoaranda Onshore Towers haizea sica haizea Monopile Foundations bilbao

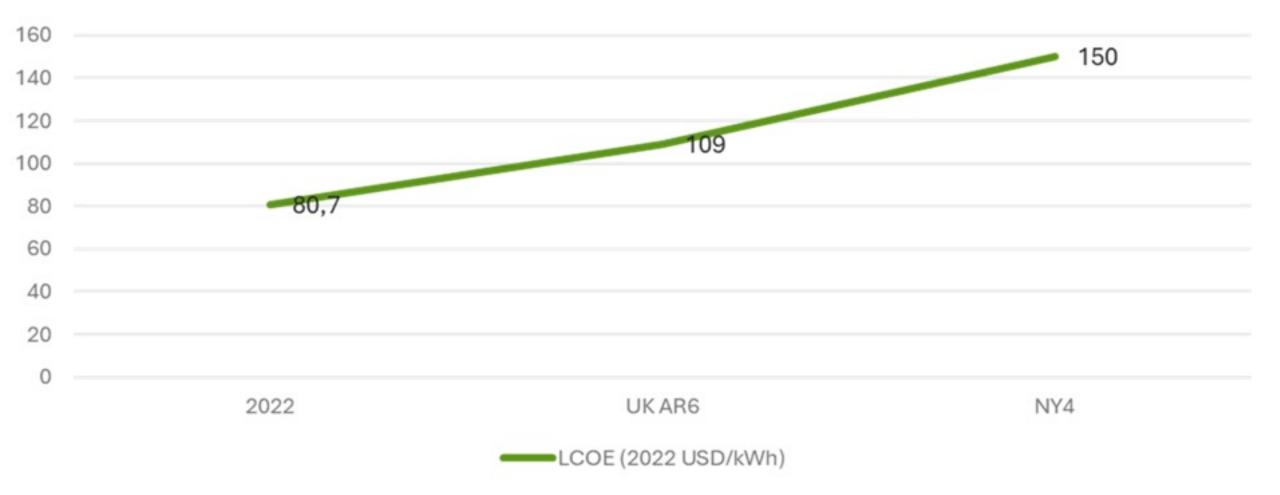




And a Wind Group: Who we are and what we do
Offshore Wind Historical recap
Where we are now
What to expect
Conclusions



Offshore Wind LCOE











Market Environment

Political	Economical	Social
NZIA arrives late. It can be seen as a risk or opportunity for companies that have made bold investment moves like Haizea as it may subsidize new facilities. Targets require to multiply by 3 the current annual capacity before 2030.	High interest rates, inflation and raw materials cost have jeopardized projects in US. However, latest auctions in NY and UK are recognizing current cost levels	Offshore wind seen as one of the most reliable and less controversial energy sources in Europe. In US, democrats have been much supportive, while republicans have declared to be against renewables (specifically offshore)
Technological	Ecological	Legal
Bottom fixed offshore wind has absolutely no competition in terms of offshore energy source, and Europe needs offshore Energy to complement the onshore energy sources	Policies to stop climate change and clients require investment in Net-Zero technologies, circularity of products and with positive biodiversity impact.	No Antidumping initiated as Chinese capacity is more a need than a threat for European offshore wind. No major support schemes for supply chain in place so far. Projects have a very stable regulatory framework in Europe.



Ørsted Doubles Offshore Wind Earnings in 2023

BUSINESS & FINANCE

February 7, 2024, by Adnan Memija **Share this article**

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World's leading offshore wind developer 18.7 billion (about EUR 2.5 billion) for 20 DKK 23 billion and DKK 26 billion (approx



System Operator

Iberdrola: Record investments of €5.28 Bn (+16%) and strong operational performance drive H1 reported net profit of €4.13 Bn

🕓 July 24, 2024 reve







Earnings increased for both RWE's offshore wind and onshore wind/solar segments in the first quarter of 2024.

Adjusted EBITDA in the offshore wind segment amounted to \notin 548m, compared to \notin 473m in the first quarter of 2023.

What can go wrong?



Offshore Wind Supply Chain is extremely fragile at this moment

Siemens Energy reviews wind unit set-up

after \$5 billion loss By Christoph Steitz and Alexander Hübner

Energy

November 15, 2023 3:09 PM GMT+1 · Updated 10 months ago



The big players are **bleeding** money....

Reuters

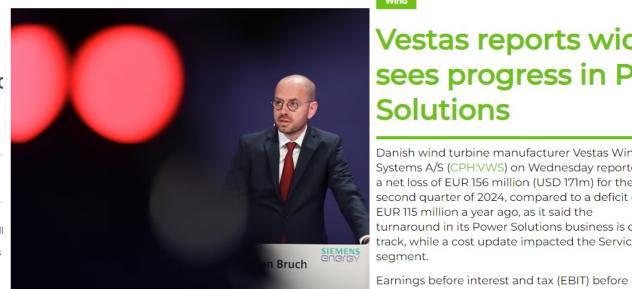
GE Vernova falls on forecast fc Q3 loss in wind unit

12 Sep, 2024 a las 1:20 p.m. GMT

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** U.S.-based power equipment maker GE Vernova's GEV.N shares fall

** Expects wind segment to generate about \$300 mln in Q3 core loss offshore wind turbine blades recently



Vestas reports wider Q2 loss, sees progress in Power Solutions

Danish wind turbine manufacturer Vestas Wind Systems A/S (CPH:VWS) on Wednesday reported a net loss of EUR 156 million (USD 171m) for the second guarter of 2024, compared to a deficit of EUR 115 million a year ago, as it said the turnaround in its Power Solutions business is on track, while a cost update impacted the Service segment.



oilbac

Vestas wind turbines in Germany. Image by: Vestas Wind Systems A/S.

special items were negative EUR 185 million, with [1/3] Siemens Energy CEO Christian Bruch addresses the annual results press conference in Munich, Germany, Novembe 15, 2023. REUTERS/Leo Simon Purchase Licensing Rights [7] < >





And many of the key components are delivered by specialized but rather small companies that are overstressed and have no ability to expand

Ørsted cancels two offshore wind projects citing supply chain problems

The projects off the coast of New Jersey had become financially unworkable due to delays and increased interest rates, the company said.

Published Nov. 3, 2023

A PART OF WATCH MEDIA

By Diana DiGangi Reporter

• ENERGYWATCH



RENEWABLES

Equinor and BP cancel gigawatt project in New York

The oil companies follow Ørsted in dropping its largest offshore wind project in the US, but plans to rebid the capacity.

Source: WoodMackenzie



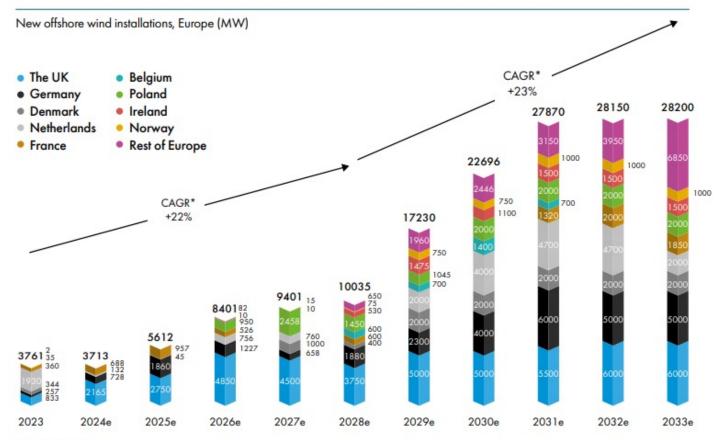


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What to expect



Demand for key components and services is soaring



 Demand by 2029 will be 4 X the one we have today

haizea

bilbao

 Today we see saturated market conditions for several components like foundations, substations or installation vessels

*Compound Annual Growth Rate. Source: GWEC Market Intelligence, June 2024

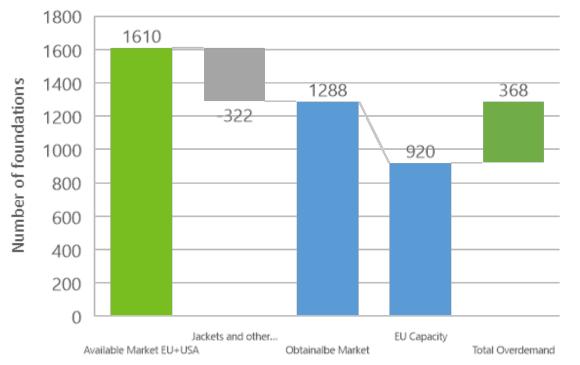


What to expect



But supply chain is not growing at the required speed

Supply-Demand Balance for Monopiles for the coming 5 years



Required investment in new supply capacity to meet 2030 demand



Installation USD 13.4 billion 3 - 4 year lead time



Foundations USD 5 billion 4 - 5 year lead time







Towers USD 3.5 billion 3 - 4 year lead time



Nacelles USD 1 billion 2 year lead time

Firm To be announced

Source: WoodMackenzie





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Conclusions



Economics

 ✓ Offshore wind is now entering a new phase in which price is expected to plateau around 80-100 €/MWh

Politics

✓ It seems that at this level, European and US policies will still support the sector

Market

✓ Demand is expected to be multiplied by **3-5 times** by the end of the decade

Supply Chain

- Key suppliers need to deliver existing backlog and capture more sustainable contracts
- ✓ Investment on new facilities is already late due
- Europe will need to cover part of the demand for several key components from China



Let's take action to leave a better world behind us for the future generations

Thank you!



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